

SEQUENCE LISTING

<110> KETCHUM, Karen et al.

<120> ISOLATED HUMAN TRANSPORTER PROTEINS,
NUCLEIC ACID MOLECULES ENCODING HUMAN TRANSPORTER PROTEINS,
AND USES THEREOF

<130> CL001013

<150> 09/815, 301
<151> 2001-03-23

<150> 60/254, 554
<151> 2000-12-12

<160> 5

<170> FastSEQ for Windows Version 4.0

<210> 1
<211> 1468
<212> DNA
<213> Human

<400> 1

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<211> 457
<212> PRT

<213> Human

<400> 2

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 35 40 45
 Ala Ala Arg Val Ser Trp Ile Ala Ser Ile Gly Ile Ala Val Gln Gln
 50 55 60
 Phe Gly Ser Pro Val Gly Ser Ala Leu Ser Thr Lys Phe Gly Pro Arg
 65 70 75 80
 Pro Val Val Met Thr Gly Gly Ile Leu Ala Ala Leu Gly Met Leu Leu
 85 90 95
 Ala Ser Phe Ala Thr Ser Leu Thr His Leu Tyr Leu Ser Ile Gly Leu
 100 105 110
 Leu Ser Gly Ser Gly Trp Ala Leu Thr Phe Ala Pro Thr Leu Ala Cys
 115 120 125
 Leu Ser Cys Tyr Phe Ser Arg Arg Arg Ser Leu Ala Thr Gly Leu Ala
 130 135 140
 Leu Thr Gly Val Gly Leu Ser Ser Phe Thr Phe Ala Pro Phe Phe Gln
 145 150 155 160
 Trp Leu Leu Ser His Tyr Ala Trp Arg Gly Ser Leu Leu Leu Val Ser
 165 170 175
 Ala Leu Ser Leu His Leu Val Ala Cys Gly Ala Leu Leu Arg Pro Pro
 180 185 190
 Ser Leu Ala Glu Asp Pro Ala Val Gly Gly Pro Arg Ala Gln Leu Thr
 195 200 205
 Ser Leu Leu His His Gly Pro Phe Leu Arg Tyr Thr Val Ala Leu Thr
 210 215 220
 Leu Ile Asn Thr Gly Tyr Phe Ile Pro Tyr Leu His Leu Val Ala His
 225 230 235 240
 Leu Gln Asp Leu Asp Trp Asp Pro Leu Pro Ala Ala Phe Leu Leu Ser
 245 250 255
 Val Val Ala Ile Ser Asp Leu Val Gly Arg Val Val Ser Gly Trp Leu
 260 265 270
 Gly Asp Ala Val Pro Gly Pro Val Thr Arg Leu Leu Met Leu Trp Thr
 275 280 285
 Thr Leu Thr Gly Val Ser Leu Ala Leu Phe Pro Val Ala Gln Ala Pro
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 Thr Ala Leu Val Ala Leu Ala Val Ala Tyr Gly Phe Thr Ser Gly Ala
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 325 330 335
 Arg Ile Tyr Cys Gly Leu Gly Leu Leu Gln Met Ile Glu Ser Ile Gly
 340 345 350
 Gly Leu Leu Gly Pro Pro Leu Ser Gly Tyr Leu Arg Asp Val Ser Gly
 355 360 365
 Asn Tyr Thr Ala Ser Phe Val Val Ala Gly Ala Phe Leu Leu Ser Gly
 370 375 380
 Ser Gly Ile Leu Leu Thr Leu Pro His Phe Phe Cys Phe Ser Thr Thr
 385 390 395 400
 Thr Ser Gly Pro Gln Asp Leu Val Thr Glu Ala Leu Asp Thr Lys Val
 405 410 415
 Pro Leu Pro Lys Glu Gly Leu Glu Gly Leu Asn Ser Thr Glu Ser
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Gly Pro Glu Ser Gln Ser Leu Thr Ala Pro Gly Leu Leu Leu Pro Arg
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<210> 3
<211> 6566
<212> DNA
<213> Human

<220>
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<210> 4

<211> 456

<212> PRT

<213> Rattus norvegicus

<400> 4

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Ser	Val	Phe	Phe	Arg	Glu	Leu	Lys	Arg	Asp	Phe	Gly	Ala	Gly	Tyr	Ser
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Asp	Thr	Ala	Trp	Val	Ser	Ser	Ile	Met	Leu	Ala	Met	Leu	Tyr	Gly	Thr
				50					55			60			
Gly	Pro	Leu	Ser	Ser	Ile	Leu	Val	Thr	Arg	Phe	Gly	Cys	Arg	Pro	Val
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Met	Leu	Ala	Gly	Gly	Leu	Leu	Ala	Ser	Ala	Gly	Met	Ile	Leu	Ala	Ser
							85		90			95			
Phe	Ala	Ser	Arg	Leu	Leu	Glu	Leu	Tyr	Leu	Thr	Ala	Gly	Val	Leu	Thr
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Gly	Leu	Gly	Leu	Ala	Leu	Asn	Phe	Gln	Pro	Ser	Leu	Ile	Met	Leu	Gly
							115		120			125			
Leu	Tyr	Phe	Glu	Arg	Arg	Arg	Pro	Leu	Ala	Asn	Gly	Leu	Ala	Ala	Ala
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Gly	Glu	Arg	Phe	Gly	Trp	Arg	Gly	Gly	Phe	Leu	Leu	Phe	Gly	Gly	Leu
							165		170			175			
Leu	Leu	His	Cys	Cys	Ala	Cys	Gly	Ala	Val	Met	Arg	Pro	Pro	Gly	
							180		185			190			
Pro	Gln	Pro	Arg	Pro	Asp	Pro	Ala	Pro	Pro	Gly	Gly	Arg	Ala	Arg	His
							195		200			205			
Arg	Gln	Leu	Leu	Asp	Leu	Ala	Val	Cys	Thr	Asp	Arg	Thr	Phe	Met	Val
							210		215			220			
Tyr	Met	Val	Thr	Lys	Phe	Leu	Met	Ala	Leu	Gly	Leu	Phe	Val	Pro	Ala
	225								230			235			240
Ile	Leu	Leu	Val	Asn	Tyr	Ala	Lys	Asp	Ala	Gly	Val	Pro	Asp	Ala	Glu
							245		250			255			
Ala	Ala	Phe	Leu	Leu	Ser	Ile	Val	Gly	Phe	Val	Asp	Ile	Val	Ala	Arg
							260		265			270			
Pro	Ala	Cys	Gly	Ala	Leu	Ala	Gly	Leu	Gly	Arg	Leu	Arg	Pro	His	Val
							275		280			285			
Pro	Tyr	Leu	Phe	Ser	Leu	Ala	Leu	Ala	Asn	Gly	Leu	Thr	Asp	Leu	

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Ile Ser Ala Arg Ala Arg Ser Tyr Gly Thr Leu Val Ala Phe Cys Ile		
305	310	315
Ala Phe Gly Leu Ser Tyr Gly Met Val Gly Ala Leu Gln Phe Glu Val		320
325	330	335
Leu Met Ala Thr Val Gly Ala Pro Arg Phe Pro Ser Ala Leu Gly Leu		
340	345	350
Val Leu Leu Val Glu Ala Val Ala Val Leu Ile Gly Pro Pro Ser Ala		
355	360	365
Gly Arg Leu Val Asp Ala Leu Lys Asn Tyr Glu Ile Ile Phe Tyr Leu		
370	375	380
Ala Gly Ser Glu Val Ala Leu Ala Gly Val Phe Met Ala Val Thr Thr		
385	390	395
Tyr Cys Cys Leu Arg Cys Ser Lys Asn Ile Ser Ser Gly Arg Ser Ala		400
405	410	415
Glu Gly Gly Ala Ser Asp Pro Glu Asp Val Glu Ala Glu Arg Asp Ser		
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Glu Val Leu Ser Pro Arg Ala Gly		
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<210> 5
<211> 456
<212> PRT
<213> Mus musculus

<400> 5		
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Ser Val Phe Phe Arg Glu Leu Lys Arg Asp Phe Gly Ala Gly Tyr Ser		
35 40 45		
Asp Thr Ala Trp Val Ser Ser Ile Met Leu Ala Met Leu Tyr Gly Thr		
50 55 60		
Gly Pro Leu Ser Ser Ile Leu Val Thr Arg Phe Gly Cys Arg Pro Val		
65 70 75 80		
Met Leu Ala Gly Gly Leu Leu Ala Ser Ala Gly Met Ile Leu Ala Ser		
85 90 95		
Phe Ala Ser Arg Leu Val Glu Leu Tyr Leu Thr Ala Gly Val Leu Thr		
100 105 110		
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130 135 140		
Gly Ser Pro Val Phe Leu Ser Met Leu Ser Pro Leu Gly Gln Leu Leu		
145 150 155 160		
Gly Glu Arg Phe Gly Trp Arg Gly Gly Phe Leu Leu Phe Gly Gly Leu		
165 170 175		
Leu Leu His Cys Cys Ala Cys Gly Ala Val Met Arg Pro Pro Pro Gly		
180 185 190		
Pro Pro Pro Arg Arg Asp Pro Ser Pro His Gly Gly Pro Ala Arg Arg		
195 200 205		
Arg Arg Leu Leu Asp Val Ala Val Cys Thr Asp Arg Ala Phe Val Val		
210 215 220		

Tyr Val Val Thr Lys Phe Leu Met Ala Leu Gly Leu Phe Val Pro Ala
225 230 235 240
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260 265 270
Pro Ala Cys Gly Ala Leu Ala Gly Leu Gly Arg Leu Arg Pro His Val
275 280 285
Pro Tyr Leu Phe Ser Leu Ala Leu Ala Asn Gly Leu Thr Asp Leu
290 295 300
Ile Ser Ala Arg Ala Arg Ser Tyr Gly Thr Leu Val Ala Phe Cys Ile
305 310 315 320
Ala Phe Gly Leu Ser Tyr Gly Met Val Gly Ala Leu Gln Phe Glu Val
325 330 335
Leu Met Ala Thr Val Gly Ala Pro Arg Phe Pro Ser Ala Leu Gly Leu
340 345 350
Val Leu Leu Val Glu Ala Val Ala Val Leu Ile Gly Pro Pro Ser Ala
355 360 365
Gly Arg Leu Val Asp Ala Leu Lys Asn Tyr Glu Ile Ile Phe Tyr Leu
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Ala Gly Ser Glu Val Ala Leu Ala Gly Val Phe Met Ala Val Thr Thr
385 390 395 400
Tyr Cys Cys Leu Arg Cys Ser Lys Asn Ile Ser Ser Gly Arg Ser Ala
405 410 415
Glu Gly Gly Ala Ser Asp Pro Glu Asp Val Glu Ala Glu Arg Asp Ser
420 425 430
Glu Pro Met Pro Ala Ser Thr Glu Glu Pro Gly Ser Leu Glu Ala Leu
435 440 445
Glu Val Leu Ser Pro Arg Ala Gly
450 455